2. (*Amended*) The method according to claim 1, wherein the method further comprises choosing a cost function and wherein the routing calculations minimize the cost function.

3. (*Amended*) The method according to claim 1, wherein a routing calculation for a given number of compressions comprises, at a node where the number of compressions from the source node is equal to the given number, seeking and saving for a subsequent routing calculation adjacent links on which compression is used.

4. (*Amended*) The method according to claim 1, wherein a routing calculation for a given number of compressions uses the Dijkstra algorithm and verifies the number of compressions when adding a node to the route.

5. (*Amended*) The method according to claim 1, wherein the network further comprises overflow links to an external network, said method further comprises at least two overflow routing calculations for a given number of overflows and for a given number of compressions, said overflow routing calculations comprising a first overflow routing calculation for a number of overflows less than said given number, and a second overflow routing calculation for a number of overflows and a given number of compressions using information obtained from said first overflow routing calculation .

6. (*Amended*) The method according to claim 5, wherein the method further comprises choosing a cost function representative of the cost of overflows and wherein the routing calculations minimize the cost function.

7. (*Amended*) The method according to claim 5, wherein the routing calculations are effected for a given number of overflows by varying the number of compressions and then by varying the number of overflows.

Please add the following new claims:

8. (*New*) The method according to claim 6, wherein the cost function accounts for occupancy of resources in the network.

9. (*New*) The method according to claim 8, wherein the cost function accounts for charges incurred because of overflows.

10. (*New*) A method of routing between a source node and a destination node in a network having nodes connected by links, wherein compression is used on at least one of said links, wherein the method comprises:

performing a first routing calculation with no compressions;

performing a second routing calculation for a number of compressions less than a given number of compressions; and

performing a third routing calculation for the given number of compressions using information obtained from the first and second routing calculations.

11. (*New*) The method according to claim 10, wherein the method further comprises choosing a cost function and wherein the routing calculations minimize the cost function.

12. (*New*) The method according to claim 10, wherein a routing calculation for a given number of compressions comprises, at a node where the number of compressions from the source node is equal to the given number, seeking and saving for a subsequent routing calculation adjacent links on which compression is used.

13. (*New*) The method according to claim 10, wherein a routing calculation for a given number of compressions uses the Dijkstra algorithm and verifies the number of compressions when adding a node to the route.

14. (*New*) The method according to claim 10, wherein the network further comprises overflow links to an external network, said method further comprises:

a fourth routing calculation for a number of overflows less than a given number of overflows; and

a fifth routing calculation for the given number of overflows and a given number of compressions using information obtained from said fourth routing calculation.

15. (*New*) The method according to claim 14, wherein the method further comprises choosing

a cost function representative of the cost of overflows and wherein the routing calculations minimize

the cost function.

16. (*New*) The method according to claim 14, wherein the routing calculations are effected

for a given number of overflows by varying the number of compressions and then by varying the

number of overflows.